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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,746	12/05/2001	Friedrich-Karl Bruder	Mo-6840/LeA 33,726	6704

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EXAMINER
ANGEBRANNDT, MARTIN J

ART UNIT	PAPER NUMBER
1756	

DATE MAILED: 08/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/009,746	BRUDER ET AL.
	Examiner	Art Unit
	Martin J Angebranndt	1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 December 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2 and 8-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2 and 8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The space after "ketones of" and the misspelling "halogentated" in line 5 shouldbe corrected.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2,8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagisawa et al. '171.

Yanagisawa et al. '171 teaches in example 1, the application of a silicon phthalocyanine dye having four sulfoamido groups bound to the phenyl rings of the phthalocyanine moiety in a methanol solution to a polycarbonate substrate to a thickness of 0.2 microns, followed by a gold reflective film and a UV cured resins protective layer and its use as an optical recording medium. (5/7-58). The use of various metal centers, such as Cu is disclosed. (3/67-68) The substituents may be between 0 and 4 (3/64-66). Useful reflective layers are disclosed. (4/10-18). Useful solvents for the recording film, including tetrafluoropropanol, methanol, diacetone alcohol, 2-ethoxyethanol (CELLOSOLVE) 2-methoxyethanol, and isopherone are disclosed (4/5-9)

It would have been obvious to one skilled in the art to modify the example of Yanagisawa et al. '171 to use a copper metal center, rather than the Si metal center with a reasonable expectation of achieving comparable results based upon the disclosure of equivalence. Further it would have been obvious to use mixtures of the solvents disclosed as useful with these compounds to provide a good coating solution.

Based upon the location of the substituents in the formula and their association (x and y combined add to between two and four), the examiner interprets the coverage to require the recited substitutents to be bound to the phthalocyanine moiety and not the metal (copper).

5. Claims 2,8-11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyazaki et al. JP 63-307987, in view of Kovacs et al. EP 0519395.

Miyazaki et al. JP 63-307987 teaches optical recording media embraced by the formula except in examples 1,8,13 and 15, but use different metal centers. These are spin coated from Chloroform solutions onto a polymeric substrate.

Kovacs et al. EP 0519395 teaches various central metals, metal oxides and metal chlorides, including Cu. (3/55-57). The use of various solvents is disclosed. (12/29-36). The use of binders is disclosed. (12/37)

It would have been obvious to one skilled in the art to modify the example of Miyazaki et al. JP 63-307987 to use a copper metal center, rather than the metal center of examples 1,8,13 and 15 with a reasonable expectation of achieving comparable results based upon the disclosure of equivalence by Kovacs et al. EP 0519395 and the direction to use metals in general by Miyazaki et al. JP 63-307987. Further it would have been obvious to use mixtures of the solvents disclosed as useful with these compounds to provide a good coating solution.

6. Claims 2 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagisawa et al. '171 as applied to claims cited above, and further in view of Sasakawa et al. '094 and Nett et al. '064.

Sasakawa et al. '094 teaches the use of mixtures of solvents including hexane, cyclohexane, ethylcyclohexane, methyl ethyl ketone, ethanol, propanol, ethylene glycol monomethyl ether, ethylene glycol monoethyl ether, benzyl alcohol, methylene chloride and tetrachloroethane (4/17-6/29). The use of binders, such as nitrocellulose, and ethyl cellulose resins to solutions for forming phthalocyanine based optical recording layers is disclosed as increasing the smoothness of the layer formed and reducing pin holing. (6/61-7/11)

Nett et al. '064 teaches phthalocyanine compsitions which are useful in surface finishes or priting inks and are stabilized against crystallization. (1/6-10 and 2/42-54). Useful solvents including methanol, ethanol, propanol, diacetone alcohol, monoalkyl ethers of ethylene glycols, methyl ethyl ketone, and mixtures thereof. (7/10-32) The use of binders including cellulose esters, cellulose ethers and other resins is disclosed. (7/32-48). Copper phthalocyanine dyes having four sulfoamido groups bound to the phenyl rings of the phthalocyanine moiety are examplified in table 4, including examples 5,11,12,14,17 and 19-23.

In addition to the basis provided above, the examiner cites Sasakawa et al. '094 who clearly points to the use of solvent mixtures for phthalocyanine dye solutions used to cast optical recording media layers and Nett et al. '064 which teaches copper phthalocyanine dyes having four sulfoamido groups bound to the phenyl rings of the phthalocyanine moiety are known to be compatible with various binders, such as cellulosic polymers and thatr these are soluble in

various solvents including those disclosed by Sasakawa et al. '094 which further renders the modification of the examples of Yanagisawa et al. '171 by the use of mixed solvents obvious.

7. Claims 2 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanagisawa et al. '171, in view of Sasakawa et al. '094 and Nett et al. '064 as applied to claims cited above, and further in view of Lacroix et al. '650, Crounse '710 and Miyazaki et al. JP 01-133790.

Lacroix et al. '650 teaches phthalocyanine compounds embraced by the claims, but discloses them only for use as dyes, particularly for cellulosic materials such as paper.

Crounse '710 teaches phthalocyanine compounds embraced by the claims, but discloses them only for use as dyes, particularly for cellulosic materials.

Miyazaki et al. JP 01-133790 describes various substitutents for phthalocyanine compounds which include $-SO_3H$ and $-SO_2NR_4R_5$, (which embraces the exemplified - $SO_2NH(CH_2)_3N(C_2H_5)_2$ of compound (f) on page 6, which are useful in optical recording media. (see abstract)

It would have been obvious to one skilled in the art to modify the invention of Yanagisawa et al. '171 as combined with Sasakawa et al. '094 and Nett et al. '064 by using the phthalocyanine dyes taught by Lacroix et al. '650 and Crounse '710 with a reasonable expectation of success based upon their compatability with cellulosic binder materials and the teachings by Miyazaki et al. JP 01-133790 that $-SO_3H$ and $-SO_2NH(CH_2)_3N(C_2H_5)_2$ substituted phthalocyanines are useful in optical recording media.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Otagura et al. JP 05-177947 (translation attached) teaches copper phthalocyanines with alkoxyalkylene sulfonamide moieties.

Sugiura et al. JP 60-053566 teach copper phthalocyanines and solvents therefore.

Shinkai et al. '722 (table 1), Hurditch '388 (7/57-8/3) and Usami et al. '623 (15/5-48) teach solvent mixtures for optical recording media.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J Angebranndt whose telephone number is 703-308-4397. The examiner can normally be reached on Mondays-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 703-308-2464. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Martin J Angebranndt
Primary Examiner
Art Unit 1756

August 8, 2003